

SOLOMIL. L. V.

PA SETCH

USSR/Minerals

May 1947

Cement dlass

"Theory of Glass-Cement Binding of Crystal Bodies," I. I. Kitaygorodskiy, N. V. Solomin, 2 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVI, No 6

explains great stability of a glass-cement body in operation of highly aggressive fusion and its high mechanical qualities in temperature exceeding melting point of glass by several hundred regrees. Submitted by Academician D. S. Belyankin, 23 Dec 1946.

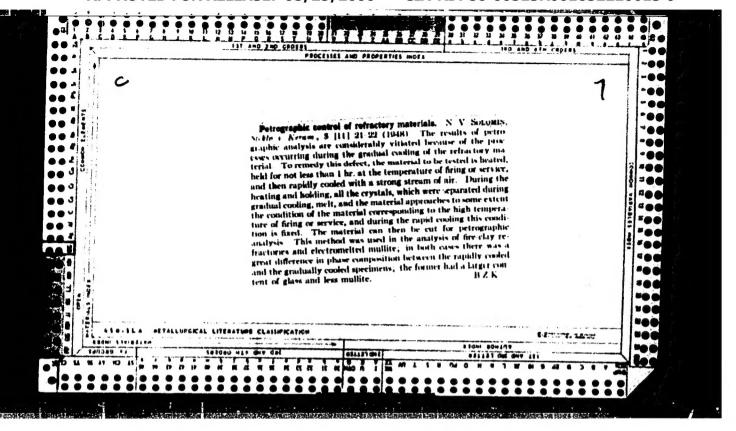
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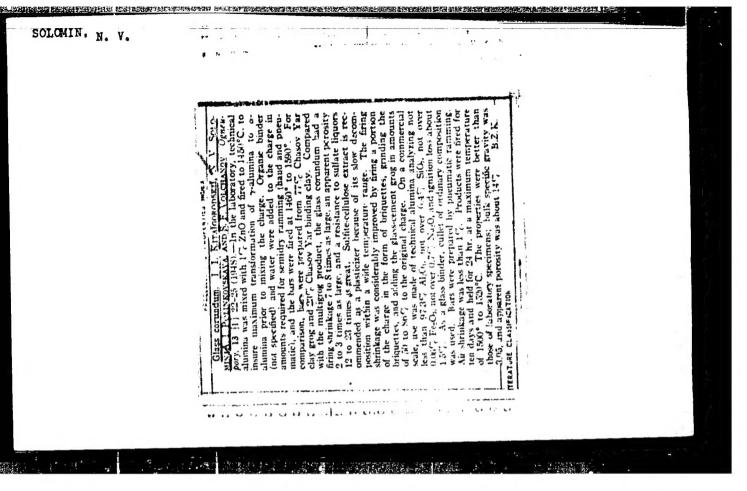
Proft Tekhn. kond-trii related koy stokel. romesti, Massaw, 19-2, j. 50-55

So: U-9600, 10 July 93, (Lecopie 'Zharnal 'nykh Statey, No. 6, 1989).



#### "APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001652220013-9



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SOLOMIN, N. V.

PA 43/43T9

UBER/Chemistry - Glass, Properties of Chemistry - Periodic System

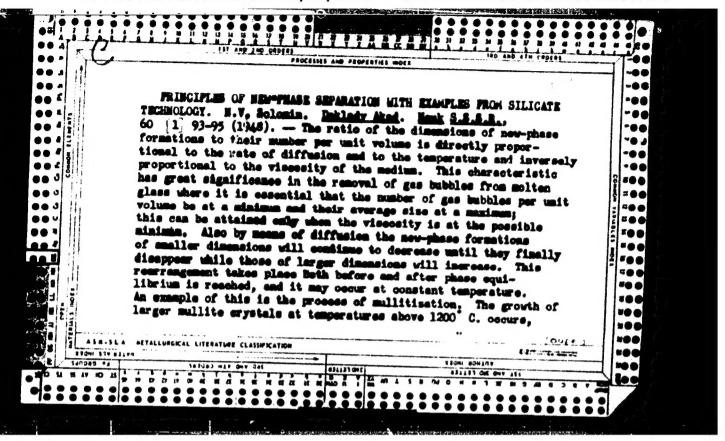
"Application of L. I. Mendeleyev's Periodic Law to the Properties of Glass," N. V. Solomin, 3 pp

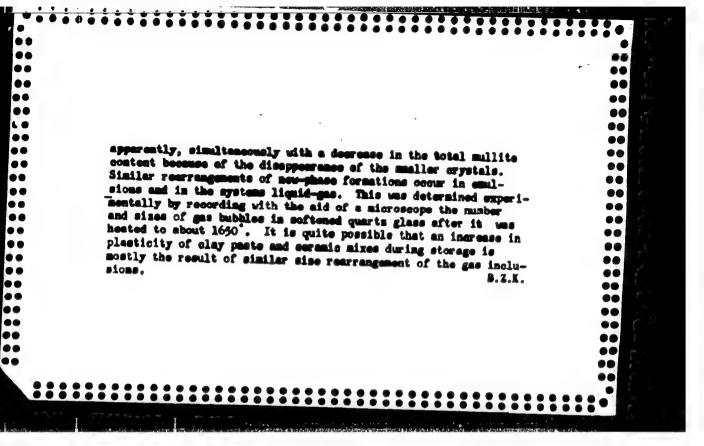
"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 4

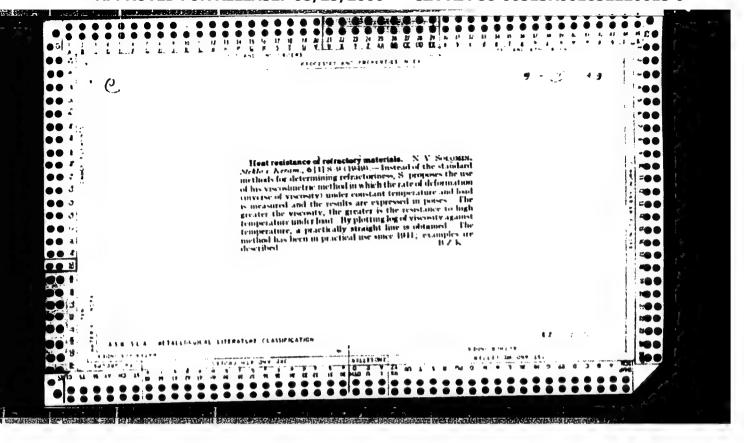
Describes experiments to determine effect of separate glass components on their physical qualities, and shows positive results in case of equinolecular components. Submitted by Academician I. V. Grevenshchik, 4 Dec 1947.

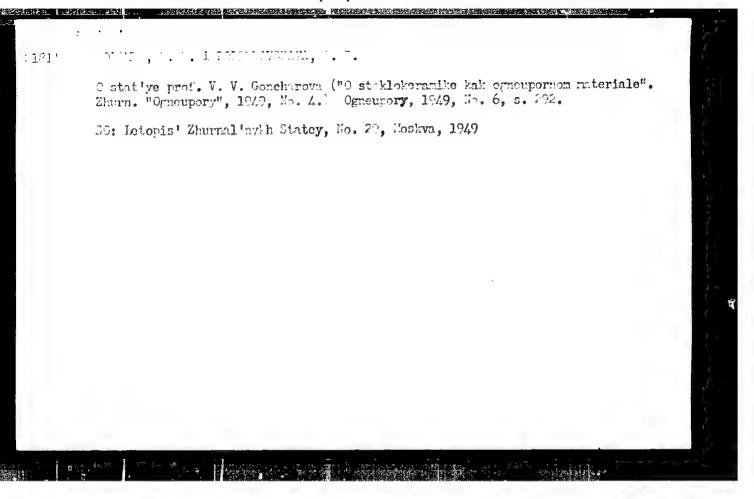
4329

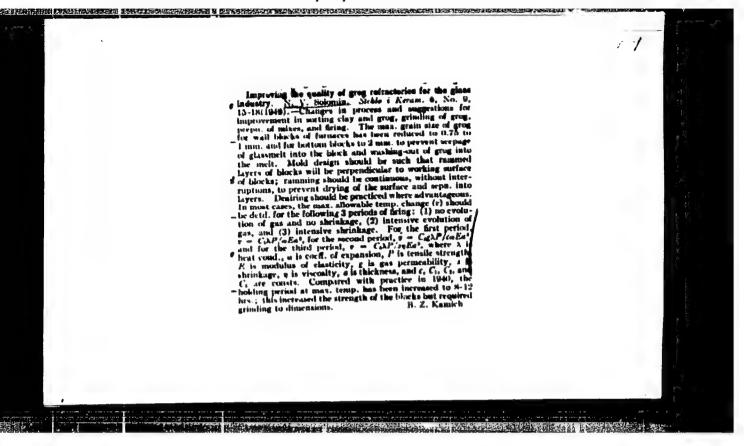
Feb 1948

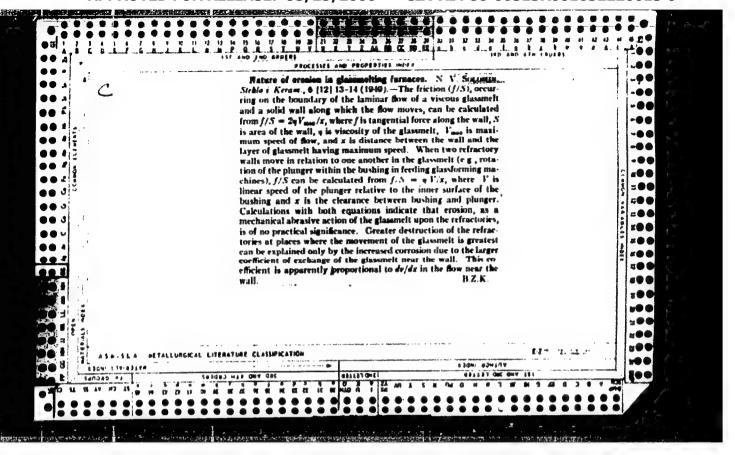






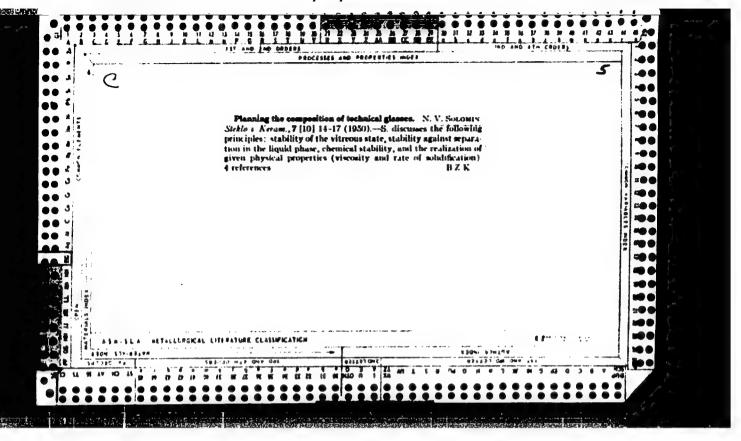


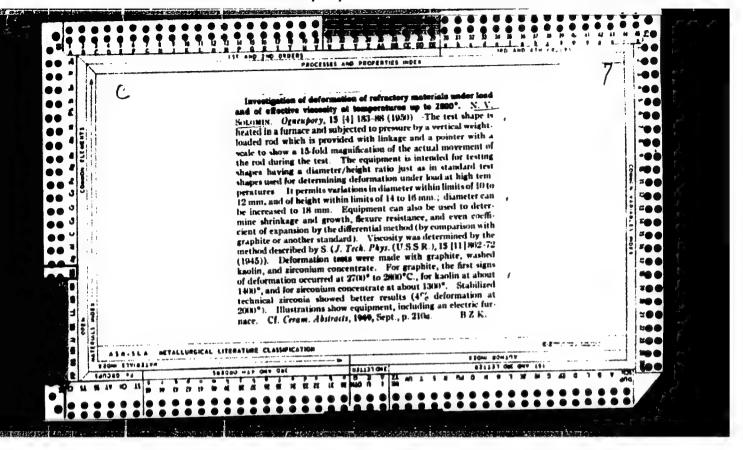


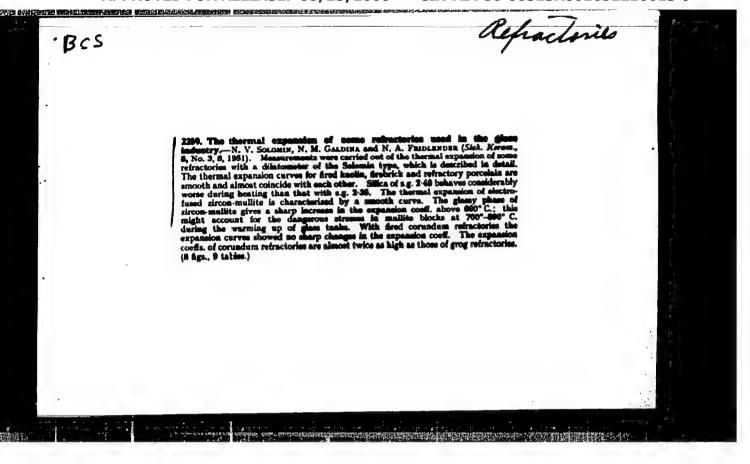


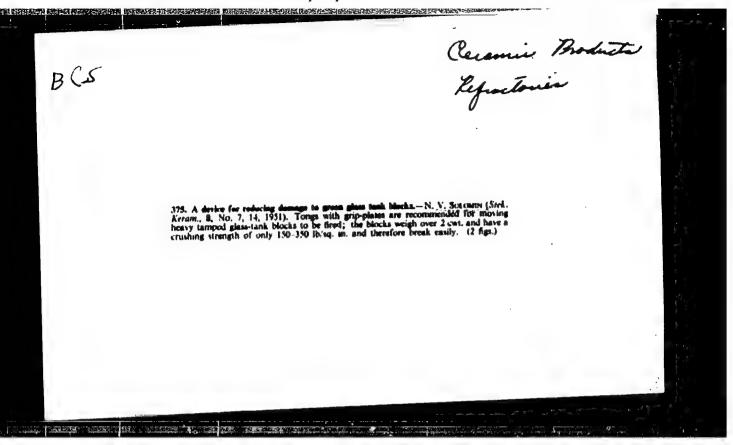
33188. Fovysheniye Aschestva Shamotnogo Frijasa. Steklo I Keramika, 1949, No. 9 c. 15-18

SC: Letopia '2hurnal 'nykh Statey, Vol. 45, Noskva, 1949









Polinkovskaya, a.i.; Solomin, N.V.

Production test of different refractory materials as regenerator checkers of glass tanks. Steklo i Keram. 9, No.3, 3-5 '52. (MLRA 5:2) (CA 1/7 no.19:10192 '53)

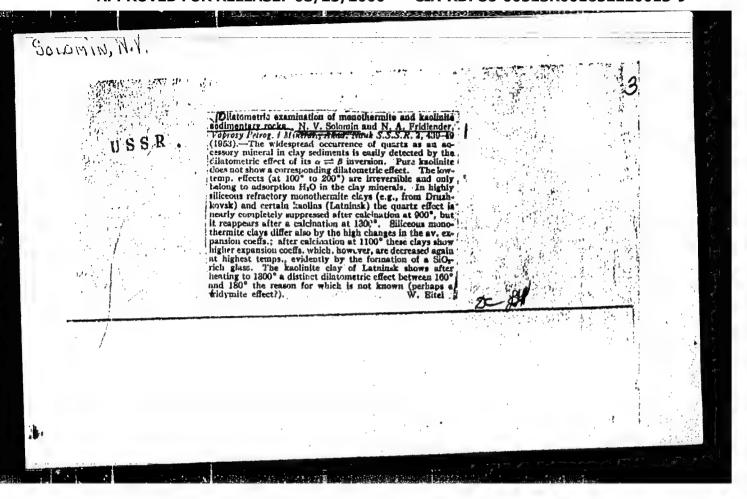
SOLOMIN, N.V.

Fuel Abstracts Vol. 14 No. 4 October 1953 Refractories JOILE CLAY-KAOLIN HIXTURES FOR GLASS-TANK REFRACTORIES AND RADIATION PYROMETER SHEATHS. Solomin, N.V. (Steklo. Kernm. (Glass & Cerumics, Moscow), 1952, vol. 9, (1). 7). Hixtures of refractory clay with 60-80% of kaolin can be fired to grog at comparatively low temperatures. The inclusion of kaolin as grog and bond considerably improves the properties of glass-tank refractories fired at slightly higher temperatures. In some cases an addition of kaolin to a clay renders the latter suitable for the production of satisfactory glass-tank refractories. Clay-kaolin mixes with a high kaolin content may be used for the ranufacture of radiation-tubes for pyrometers.

SOLOMIN, N.V., doktor tekhnicheskikh mauk, professor; KUKOLEV, G.V., doktor tekhnicheskikh mauk, professor, redaktor.

[Refractory materials for glass furnaces] Ogneupory dlia steklovareanykh pechei; proizvodstvo i primenenie. Pod red. G.V.Kukoleva. Noskva. Gos. izd-vo lit-ry po stroit. materialam, 1953. 190 p. (MLRA 7:6)

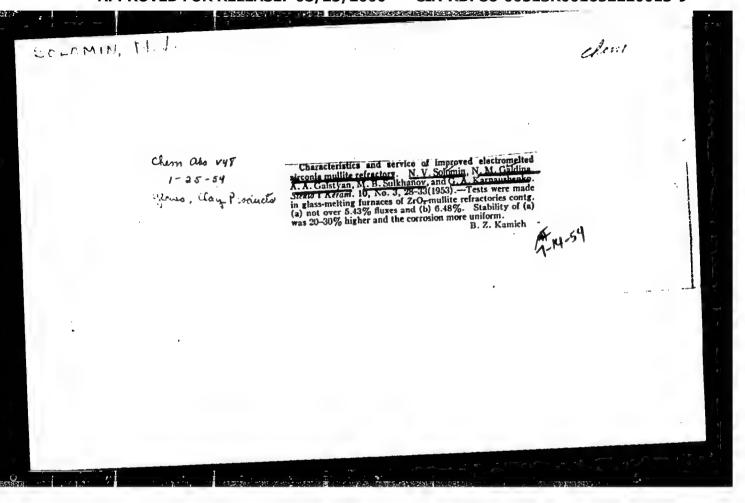
(Refractory materials) (Glass manufacture)

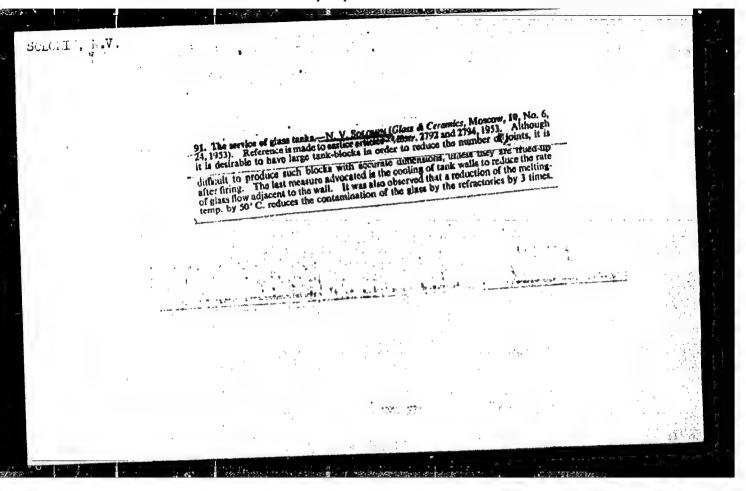


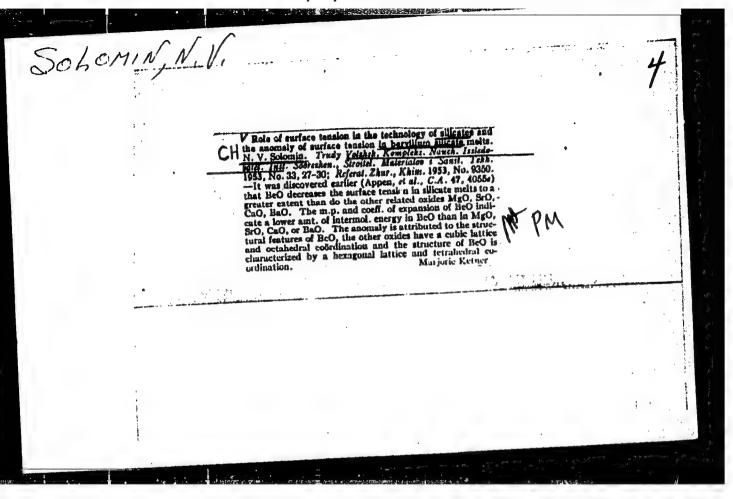
# "APPROVED FOR RELEASE: 08/25/2000 CIA

CIA-RDP86-00513R001652220013-9

,	Chemical Abst. Vol. 48 No. 3 Feb. 10, 1954 Glass, Clay Products, and Enameled Metals	Refractories,	Changes in microstructure of electromelied multite refractory at service temperatures. N. V. Schomin and N. M. Galdina. Stehlo i Keram. 10, No. 1, 18-201580. — Three lab-made and one com. electromelted multite refractories were heated to 1450° in 3.5 hrs., held for 3 hrs., and then cooled rapidly in water. Chilled specimens showed more glass than those cooled slowly; the former showed no ore minerals, while the latter had up to 3%. Chilled specimens also had more pores. For flux content of 1.5-4.0% there were no structural changes in either; for over 6% there were certain structural changes.  B. Z. Kamich	







SOLOMIN, N.V., doktor tekhn.nauk, prof.; CALDINA, N.M., kand.tekhn.nauk

Improving the composition and technology in preparing electrically melted zirconia mullite. Trudy VNIIStekla no.33:42-64 (MIRA 12:1)

153. (Refractory materials—Testing) (Zirconia) (Mullite)

	Pub. 104 - 10/12	
Authors :	Solomin, N. V., Dr. of Tech. Sc., Professor  Certain sources and methods for the prevention of glass flaws  Stek. i ker. 1, 29-31, Jan 1954  The various causes resulting in glass flaws during the manufacturing processes are explained. Methods for the prevention of flaws in glass processes are explained. Methods for the prevention of flaws in glass	
Institution:	are discussed. Two USSR references (1937-1953). Drawing.	
Submitted:		

Solomino, T. U. USSR/ Miscellaneous - Bibliography

Pub. 104 - 12/12 1/1 Card

: Kitaygorodskiy, I.T. Authors

: A useful book for glass industry workers Title

; Stek. i ker. 5, page 32, May 1954 Periodical

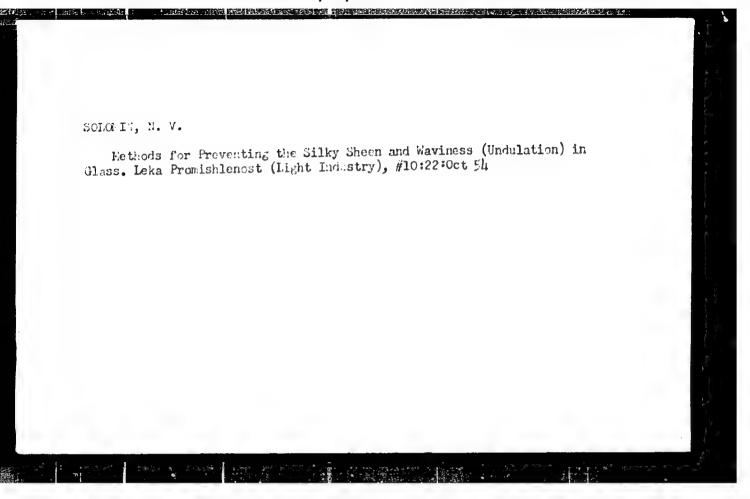
The editorial presents an abstract of N.V. Solomin book, concerning, "The Production of Special, Highly-Qualitative herractories for Glass Abstract

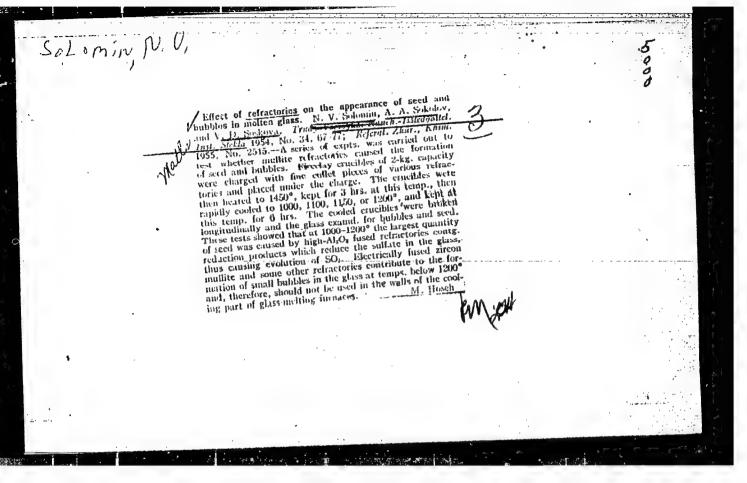
Industry, Economization of Refractory Materials and Technological

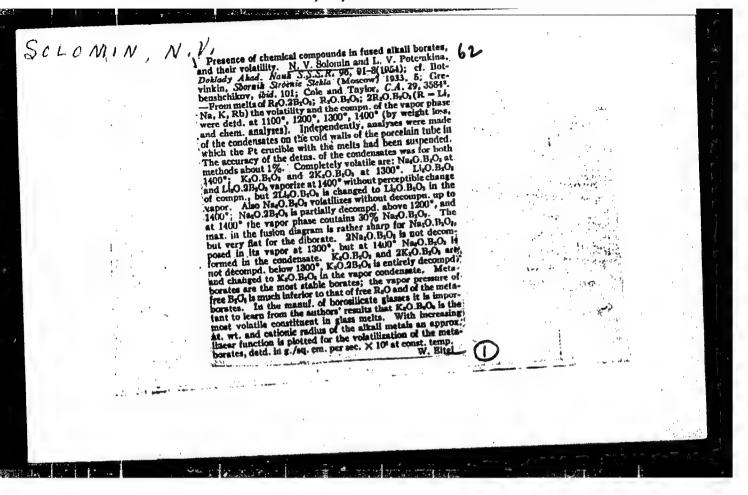
Problems of Glass Production.

Institution:

Submitted:







JOLOMIN NY

USSR/Chemical Technology. Chemical Products and their Application. J-12

Glass. Ceramics. Building Material.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27623.

Author: N.V. Solomin.

Inst -

Title : Chemical Compounds in Boron Glasses.

Orig Pub: vSb: Stroyeniye stekla. M.-L., AN SSSR, 1955, 230-233.

Abstract: Experiments are described, in the results of which it has been

established that metaborates (R<sub>2</sub>O.B<sub>2</sub>O<sub>3</sub>) evaporate without decomposition, if borate fuses were heated. This fact proves the stability of metaborates in fuses. Checking of the results of these experiments with industrial borosilicate glass containing potassium oxide as the alkali showed also that mainly potassium netaborate evaporated from the glass in this case. The author thinks that the formation of borates in fuses may explain the so-called anomalies of borate and borosilicate glasses in the "composition-property" graphs without resorting to the hypothe-

Card : 1/2 -23-

USSR/Chemical Technology. Chemical Products and their Application. J-12
Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27623

sis of alteration of boron co-ordination. It seems that some stoichiometrically definite compounds of the type of salts in silicate systems prove to be sufficiently strong in fuses and, consequently, also in glass. Many peculiarities of physical and chemical properties of silicate glasses are probably connected with this. See RZhKhim, 1957, 1565.

Card : 2/2

-24-

Socomin, N.V. USSR/Miscellaneous - Glass furnaces Card1/1 Pub. 104 - 6/8 Authors Solomin, N. V., Prof. Dr. of Tech. Sc. Title New types of refractories for glass furnaces Periodical : Stek. i ker. 3, 23-24, Mar 1955 Abstract The development and testing of two new types of high temperature resistant refractories (ceramic high alumina refractory and melted high alumina zirconium refractory - Bakor -) for the interior of glass furnaces are re-Institution : Submitted

USSR/Chemical Technology - Chemical Products and Their Applications - Silicates. Glass. Ceramics. Binders. I-10

Abs Jour

Solomin, N.V.

Inst Tit.le

Correction to the Article "Modern Trends in the Development of Refractories Production and Their Application in the Glass

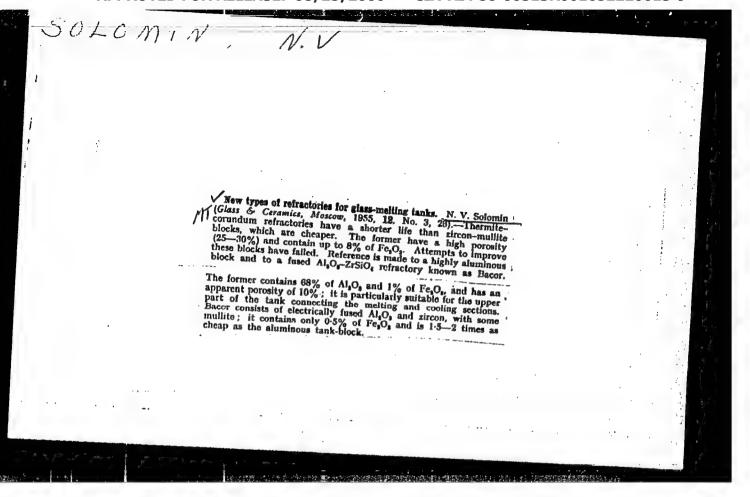
Orig Pub

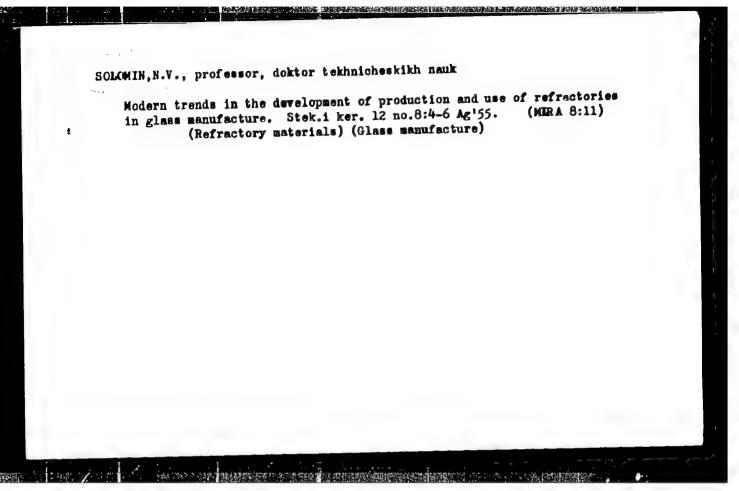
: Steklo i keramika, 1955, No 9, 3

Abstract

: See RZhKhim, 1956, 36679

Card 1/1





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137-1958-2-2293

Translation from. Referativnyy zhurnal. Metallurgiya, 1958. Nr 2, p 12 (USSR)

AUTHOR Solomin, N.V.

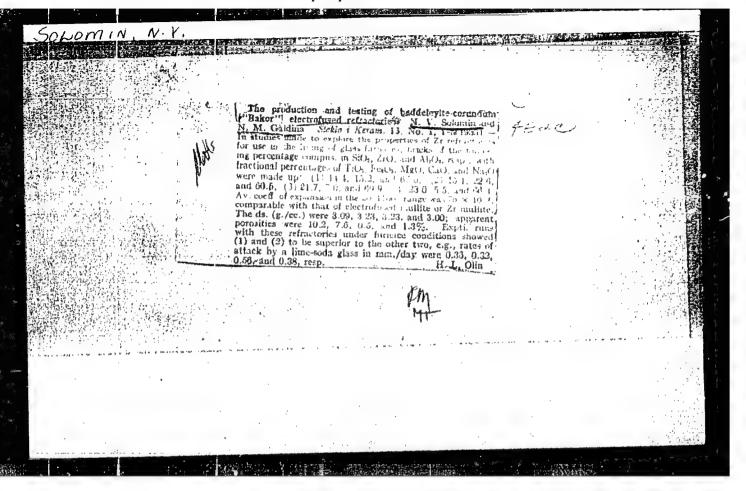
TITLE On the Physicochemical Fundamentals of the Fusing of Refractories (K fiziko-khimicheskim osnovam proizvodstva plavlennykh ogneuporov)

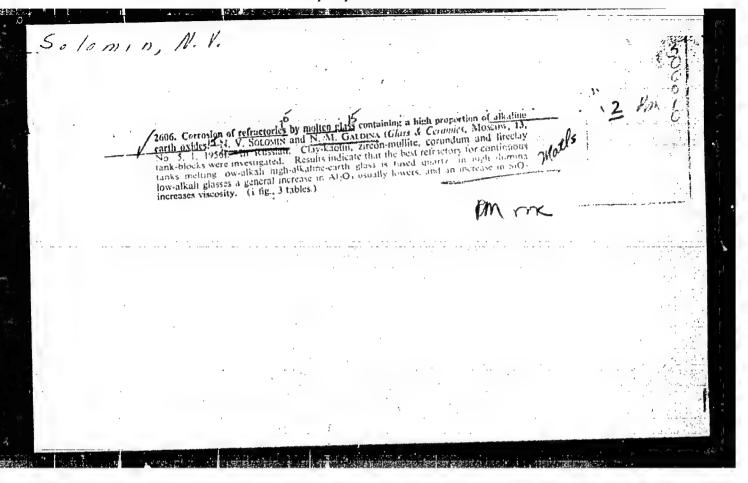
PERIODICAL: V sb.: Fiz.-khim. osnovy keramiki. Moscow, Promstroyizdat, 1956, pp 359-375

ABSTRACT: Attention is centered on the special features of the technology of fused refractories obtained by casting from melts, and particularly on such matters as the viscosity of and convection in the melts, crystallization (rate of growth, dimensions, geometrical configurations, effect of additives, formation of pores), reducing reactions (formation of Fe-Si), and on the annealing of the castings. Data are given on certain characteristics of different types of refractory. The calculated viscosity of fused SiO<sub>2</sub> at boiling temperature (2230°) equals approximately 1350 poises.

Bibliography 45 references. S.G.

Card 1/1 1. Refractory materials—Fusing 2. Refractory materials—Characteristics

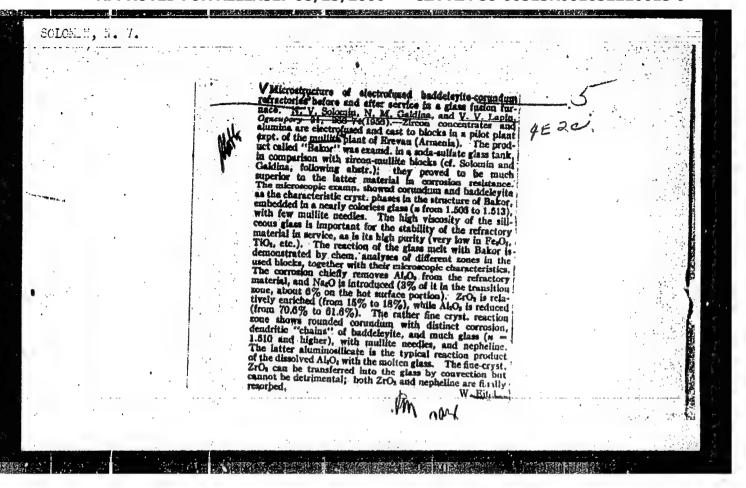




SOLOMIN. M.W., doktor tekhnicheskikh nauk, professor; GALDINA, M.M.;
SULKHANOV, M.B.; LODOCHKIN, P.A.

Manufacture and industrial testing of "bakor." Stek. i ker.
13 no.9:9-14 S '56, (MLRA 9:10)

(Refractory materials)



USSR/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62329

Author: Solomin, N. V., Galdina, N. M.

Institution: None

Title: Investigation of the Corrosion of Refractories by Glass Melts

Original

Periodical: Tr. Vses. n.-i. in-ta stekla, 1956, No 36, 43-50

Abstract: Tests were carried out on the resistance to glass melts of a number of refractories according to the method developed by the authors. In the tests use was made of ordinary window glass and glass of eutectoc type, of the system CaO-MgO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> containing 3-10% Na<sub>2</sub>O, chamotte, thermitocorundum, zirconomullite, bacor, quartz, etc. It was found that fused quartz is the most stable refractory on exposure to low-alkali, high alumina glass melts containing large amounts of alkaline-earth oxides. This is due to the formation of a viscous protective film of silica at the surface of the

refractory as a result of interaction with the glass melt.

Card 1/1

SOLOMIN, N.V., doktor tekhn. nauk, prof.

Production of compact corundum refractories electrically fused in laboratory kilns. Trudy TMIIStekla no.77:32-35 '57. (MIRA 11:1)

(Refractory materials) (Corundum)

SOLOMIN, N.V., doktor tekhn. nauk, prof.; GALDINA, N.M., kand. tekhn. nauk.

Magnesia-zircon-mullite electrically fused refractories for glass furnaces. Trudy WHIStekla no.37:36-43 \*57. (MIRA 11:1)

(Refractory materials) (Glass furnaces)

AUTHOR:

Solomin, N. V., Professor School Control of the Control of the

SOV/72-53-10-12/18

TITLE:

Glass and Ceramics at the World Fair in Brussels (Steklo

i keramika na Vsemirnoy vystavke v Bryussele)

PERIODICAL:

Steklo i keramika, 1958, Nr 10, pp 42-43 (USSR)

ABSTRACT:

Class took a prominent part at this fair. Ceramics were less shown. In the Soviet pavillon glass walls of a length of 150 and 72 m, and a height of about 20 m, as well as glass ceilings were exhibited. In contrast to other pavillons semitransparent glass with a rolled chagrin surface was used (Figs 1 and 2 of the enclosures). In figure 3 the Paris pavillon and in figure 4 that of Belgium are shown. In figure 5 the crystal products exhibited by the Leningradskiy zavod khudozhestvennogo stekla (Leningrad Factory of Artistic Glassware) are shown. The glass exhibition of the Czechoslovakian pavillon is said to have been very interesting (Figs 6 and 7). In the figures 8 and 9 Belgian crystalware and colored glass are shown, and in figure 10 some from Finland. In the figures 11 and 12 Belgian ceramics are shown. In figure 13 a porcelain set of the Soviet factory imeni

Card 1/2

Lomonosov, and in figure 14 porcelain products of the

Glass and Ceramics at the World Fair in Brussels

The state was a state of the st

SOV/72-58-10-12/18

Czechoslovakian pavillon are shown. In figure 15 Belgian faience, and in figure 16 porcelain products are shown. Finally the author states that Western Europe showed good technical achievements as regards quality and finishing, but as regards taste the USSR and the People's Democracies had proved to be superior. There are 16 figures.

Card 2/2

# "APPROVED FOR RELEASE: 08/25/2000

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	,25(1),25(5) AUTHUR:	197222	Seed VS	

AUTHOR:

Solomin, N.V., Professor, Doctor of

72-58-6-18/19

Technical Sciences

TITLE:

A Collection of Scientific Works on Glass- and Rock-Smelting (Sbornik nauchnykh rabot po steklu i plavlenym gornym porodam)

PERIODICAL:

Steklo i Keramika, 1958, Vol. 15, Nr 6, pp. 48-48 (USSR)

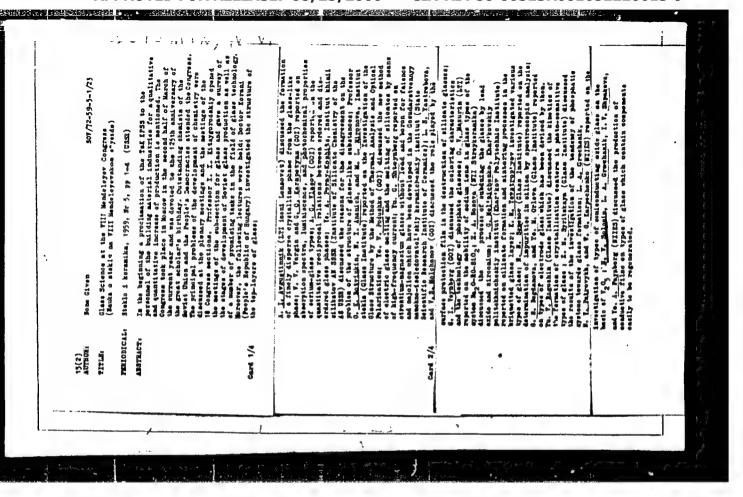
ABSTRACT:

The author in short discusses the work entitled: "Science and Research in the Glass Industry" (Veda a výzkum v prumyslu sklárském, Rada III, Praha, 1957), which was published in

Czechoslovakia.

1: Glass industry--USSR 2. Scientific research--USSR

Card 1/1



SOLOMIN, N.V., prof., doktor tekhn.nauk

What's new in glass minufacture in Sweden. Stek. i ker. 17 no.6:43
44 Je !60.

(Sweden--Glass manufacture)

-SOLOMIN. Nikolay Vasil'yevich, doktor tekhn.nauk, prof.; ABUTKINA, E.I., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Refractories for glass furnaces; production and use] Ogneupory dlia steklovarennykh pechei; proizvodstvo i primenenie. Izd.2., perer. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 185 p.

(MIRA 14:6)

(Refractory materials)

(Glass furnaces)

KITAYGORODSKIY, I.I., doktor tekhn. nauk, prof.; KACHALOV, N.N., prof.; VARGIN, V.V., doktor tekhn. nauk, prof.; YEVSTROP'YEV, K.S., doktor tekhn. nauk, prof.; GINZBURG, D.B., doktor tekhn. nauk, prof.; GURFINKEL', I.Ye., inzh.; ZAK, A.P., kand. tekhn. nauk; KOTIYAR, A.Ye., inzh.; PAVLUSH-KIN, N.M., doktor tekhn. nauk, prof.; SENTYURIN, G.G., kand. tekhn. nauk; SIL'VESTROVICH, S.I., kand. tekhn. nauk, dots.; SOLINOV, F.G., kand. tekhn. nauk; SOLOMIN, N.V., doktor tekhn. nauk, prof.; TEMKIN, B.S., kand. tekhn. nauk; GLADYSHEVA, S.A., red. izd-va; TEMKINA, Ye.L., tekhn. red.

[Glass technology] Tekhnologiia stekla. Izd.3., perer. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 622 p. (MIRA 14:10)

1. Chlen-korrespondent AN SSSR (for Kachalov). (Glass manufacture)

15.25.0

29119 \$/020/61/140/005/015/022 B103/B110

AUTHORS:

Solomin, N. V., Shelyubskiy, V. I., and Vaysfel'd, N. M.

TITLE:

Formation of glass-microcrystalline structures

.ERIGDICAL Akademiya nauk SSSR. Doklady, v. 140, no. 5, 1961, 1087-1089

TEXT: This paper deals with the study of changes in the dimensions of new formations in the crystallization of glass containing  $SiO_2$ ,  $Al_2O_3$ , and  $TiO_2$ . The changes  $\Delta s$  of the interface, and  $\Delta z$  of the isobaric-isothermal potential are interrelated by  $I\Delta s = \Delta z$ , where I denotes the intensity of the surface energy. Since the entropy change  $\Delta S = -\partial \Delta z/\partial T$ ,  $\Delta S = -\Delta s(\partial I/\partial T)_p$  is valid, and for the enthalpy change holds  $\Delta H = \Delta s [I - T(\partial I/\partial T)_p]$ . Samples of initial glass were crystallized at two different temperatures. In the last stage of crystallization, the samples of both series were heated in the thermostat at 1050 C. Carbon replica of the crystallized samples were studied under the 3M-100 (EM-100) electron microscope with a 14000-fold magnification. Prior to this study they were etched for 5-20 sec in 12/p H.

Card 1/3

29119 S/020/61/140/005/015/022 B103/B110

Formation of glass-microcrystalline...

Two main crystalline phases could be distinguished. By X-ray analysis they were identified as disthene and rutile. The disthene crystals were anort prisms—nutile had oblong prisms with pyramidally inclined small facets. The difference in the crystal sizes of the two phases was very low. The crystals increased in size as the time of treatment at constant temperature was extended, their number, however, decreased while the phase composition was kept constant. This is due to an absorption of smaller crystals by larger ones. The results show that the process of redistribution of microcrystalline structures is of considerable importance in thermal treatment. Since the heterogeneity of composition occurring in the initial semiproduct favors new formations in the initial and thus also in the final stage, a maximum chemical homogeneity of the glass semiproduct is necessary to guarantee maximum homogeneity of the glass-microcrystalline structure. There are 3 figures, 1 table, and 7 references: 5 Soviet-bloc, and 2 non-soviet-bloc.

ASSOCIATION.

Cosudarstvennyy nauchno-issledovatel'skiy institut elektrotekhnicheskogo stekla i tekhnologicheskogo oborudovaniya (State Scientific Research Institut: for Electrotechnical Glass and Technological Equipment)

Card 2/3

3/072/62/000/008/001/002 B117/B101

Solomin, N. V., Doctor of Technical Sciences, Professor

Thermomechanical stresses in joints made of glass, ceramics, AUTHOR: metals and other materials TITLE:

PERIODICAL: Steklo i keramika, no. 8, 1962, 14 - 15

TEXT: For the calculation of joints, allowing for thermomechanical stremes, the equations

 $P_1 = \Delta_{X} \Delta_{tE_1}^{E_2} P_2^{h_2/E_1}^{h_1} + E_2^{h_2}$ 

were derived for the case of cylindrical parts, where one part clasps the other.  $\Delta x = x_2 - x_1$  (a coefficient of linear expansion;  $\Delta t$  is the temperature difference between the beginning and end of cooling; E is Card 1/2

Thermomechanical stresses ...

S/072/62/000/008/001/002 B117/B101

Young's modulus; h is the thickness of the layer and P is the absolute value of the tangential stress. Joints of other configurations can also be calculated by means of these equations which may be applied irrespective of whether the parts of the joint are cooled or heated. There are 3 figures.

Card 2/2

BEREZHIOY, A.I.; BRODSKIY, Yu.A.; BRONSHTEYN, Z.I.; VEYNBERG, K.L.;

GALDINA, N.M.; GLETMAN, B.A.; GINZBURG, D.B.; GUTOP, V.G.;

GUREVICH, L.R.; DAUVAL'TER, A.M.; YEGOROVA, L.S.; KOTIYAN,

A.Ye.; KUZYAK, V.A.; MAKAROV, A.V.; FOLIYAK, V.V.; POPOVA,

E.M.; PRYANISHNIKOV, V.P.; SENTYURIN, G.G.; SIL'VESTROVICH,

S.I., kand. tekhn. nauk, dots.; SOLOMIN, N.V.; TEMKIN, B.S.;

TYKACHINSKIY, I.D.; SHIGAYEVA, V.F.; SHLAIN, I.B.; EL'KIND,

G.A.[deceased]; KITAYGORODSKIY, I.I., zasl. deyatel' nauki i

tekhniki RSFSR, doktor tekhn. nauk, prof., red.; GOMOZOVA,

N.A., red.izd-va; KOMALOVSKAYA, L.A., tekhn. red.

[Handbook on glass manufacture] Spravochnik po proizvodstvu stekla. [By] A.I.Berezhnoi i dr. Pod red. I.I.Kitaigorodskogo i S.I.Sil'vestrovicha. Moskva, Gosstroiizdat. Vol.2. 1963. E15 p. (Glass manufacture)

s/0072/64/000/006/0012/0015

ACCESSION NR: AP4040683

AUTHOR: Solomin, N. V.

TITLE: Structural parameters and properties of glass

SOURCE: Steklo i keramika, no. 6, 1964, 12-15

TOPIC TAGS: glass structure, vitreous glass, crystalline glass, alumina glass, Y parameter, N parameter

ABSTRACT: This is an abstract discussion, sometimes based on previous experimental work by the author, to determine the functional dependences of glass composition, structure and properties. The hypothetical dependence on changing ion coordination is the hypothetical dependence on changing chemical bonds due to criticized and it is suggested that changing chemical bonds due to the formation of new compounds account for nonlinear changes in the formation of new compounds account for nonlinear changes in glass properties. The relationship of vitreous/crystalline structure of glass is discussed and the Y-parameter (proposed by J.M. Stevels: of glass is discussed and the Y-parameter (proposed by J.M. Stevels: Y=average number of "bridge" oxygen ions in each polyhedron, /Philips Y=average number of "bridge" oxygen ions in each polyhedron, the author and incompatible with experimental results. Instead, the author

ACCESSION NR: AP4040693

proposes the following structural relation for ordinary oxide glasses: N = M/P, where M is the number of metal oxide molecules (basic type oxides) and P is the number of monomer oxide molecules forming the polyhedron. The greater the modification of the discorderly polyhedron lattice of the vitrification element, the greater N. Since Al<sub>2</sub>O<sub>3</sub> can be both a lattice former and a modifier, Y while Stevels considers Y = 2 the threshold of inversion, the author considers glass types with N = l as being invert. The conclusion is that while changing glass properties depends on properties of atoms: electron numbers, nuclear charge, character of the outside electron shell, ion size, quanta characteristic and Orig. art. has: 2 figures, 2 tables.

ASSOCIATION: None

SUBMITTED: 00

SUB CODE: MT

NR REF SOV: 008

ENOL: 00 OTHER: 003

L 14460-65 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EWP(v)/EPR/EPA(w)-2/T-2/ EPA(bb)-2/ENP(b)/ENA(h) Pq-4/Pr-4/Ps-4/Pt-10/Pu-4/Pab-10/Pad/Peb AFWL/BSD/ ASD(a)-5/ASD(m)-3/ESD(gs)/ESD(t) WH/WW/MJW/JD/HW/JG \$/0072/64/000/011/0013/0014 ACCESSION NR: AP4049087 Solomin, N. V. (Doctor of technical sciences)  $\mathcal{B}$ AUTHOR: New glass-metal and ceramic-metal systems TITLE: Steklo i keramika, no. 11, 1964, 13-14 source: TOPIC TAGS: glass metal system, ceramic metal system, glass electric property, glass thermal property, glass to metal joint, electrotechnical glass ABSTRACT: A new system of glass-to-metal matched joints having a coefficient of linear thermal expansion  $\alpha$  of about 70 x 10<sup>-7</sup>/deg C for both materials has been introduced into vacuum electrotechnology in order to fill the gap between  $52 \times 10^{-7}$  and  $87 \times 10^{-7}/\text{deg C}$  in the series of materials presently being used. The metal component of the system was developed on an iron-nickel base (H-38 alloy) by the Tsentral'ny\*y nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Hetallurgy). glass component was developed on a base of alumina borosilicate glass Card 1/2

L 14460-65 ACCESSION NR: AP4049087

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containing NnO, CaO, BaO, and  $R_2O$ . The  $\alpha$  values of the H-38 alloy and of the newly developed glasses are close to  $70 \times 10^{-7}/\text{deg}$  C. 16 The glasses have improved dielectric properties and thermal stability, as compared to glasses which are matched with platinum; they also display increased chemical resistance. Data on the composition and coefficient of linear expansion are tabulated for a series of glasses and ceramics which are suitable for matched or low-strained joints to H-38, titanium alloys, or tantalum metal. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

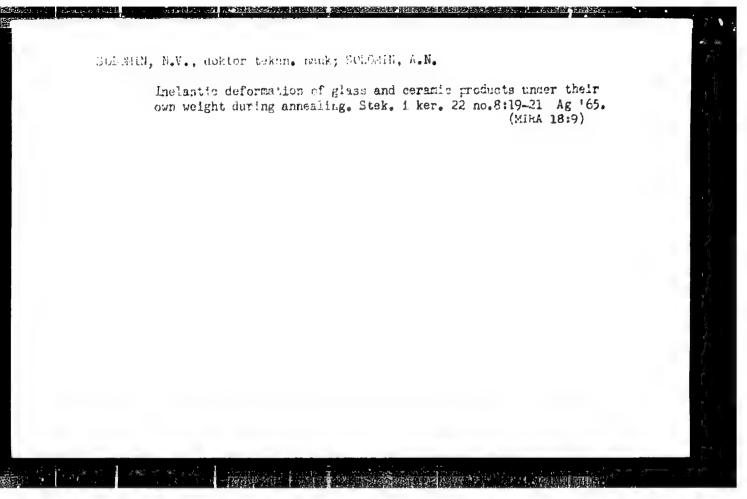
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NO REF SOV: 001

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ATD PRESS: 31'34

Card 2/2



L 40287-65 EVP(e)/EPA(s)-2/EVT(m)/T WH

ACCESSION NR: AP5005025 S/0131/65/000/002/0028/0032 / AUTHOR: Rustambekyan, S. F.; Solomin, N. V.

TITLE: Study of the phase composition of fused high-alumina (mullite) refractories

SOURCE: Ogneupory, no. 2, 1965, 28-32

TOPIC TAGS: mullite refractory, alumina refractory, fused refractory, refractory phase composition, silica content, refractory microstructure, mineralizer content, corundum

ABSTRACT: Laboratory investigations were carried out in order to determine the changes in the phase composition and microstructure of fused mullite refractories as a function of the ratio of aluminum oxide to silicon dioxide and of the type and quantity of the mineralizers (Fc2O3, CaO, TiO2, Na2O, MgO, MnO) introduced into the refractory. Six series of specimens were prepared by fusion in a solar furnace. The specimens were investigated by the petrographic method, chemical analysis, and x-ray powder method. It was found that CaO and particularly Na2O promote the formation of corundum and simultaneously increase the amount of the vitreous phase, thus decreasing the amount of mullite crystally increase the amount of magnesium, manganese, and titanium promote only a very slight lites. The oxides of magnesium, manganese, and titanium promote only a very slight formation of corundum, and cause the vitreous phase to be evenly distributed throughout the

Card 1/2

L 40287-65

ACCESSION NR: AP5005025

2

specimen, thus increasing both the resistance to vitrification and the thermal stability of the refractory. The results of the study confirm the conclusions drawn earlier by other investigators to the effect that the fusion of mullite is congruent. "Chemical analyses and treatment of the powders were carried out by S. N. Avsharova." Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii Goskhimkomiteta pri Gosplane SSSR (Chemistry scientific research institute, State chemistry committee, State planning commission, SSSR)

SUBMITTED: 00

ENCL: 00

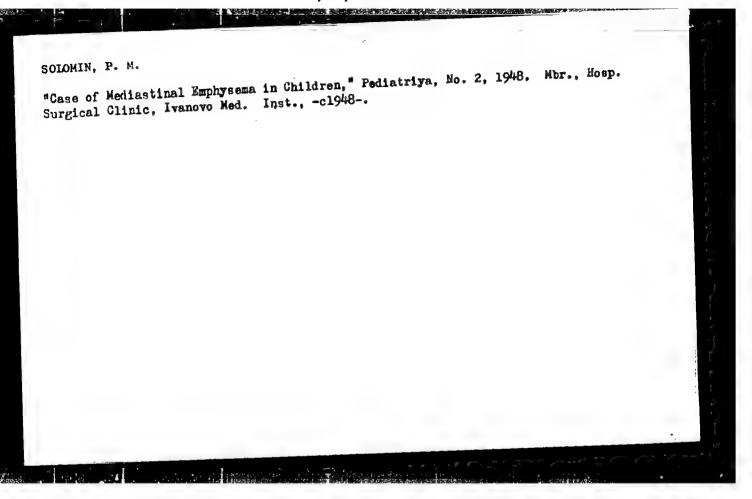
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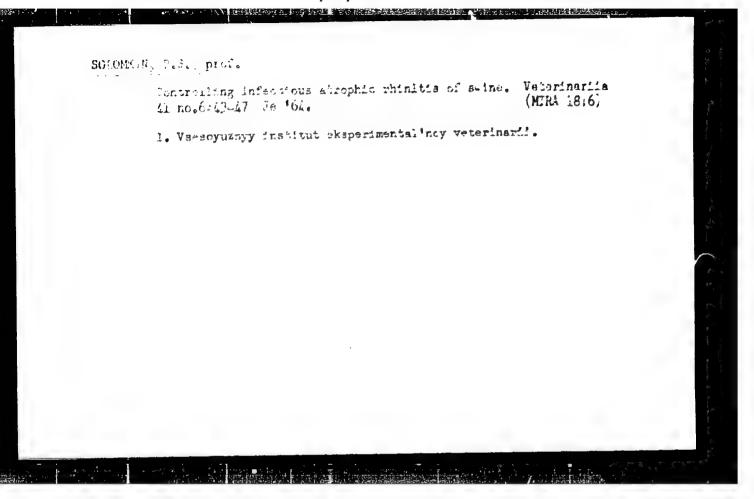
9/2

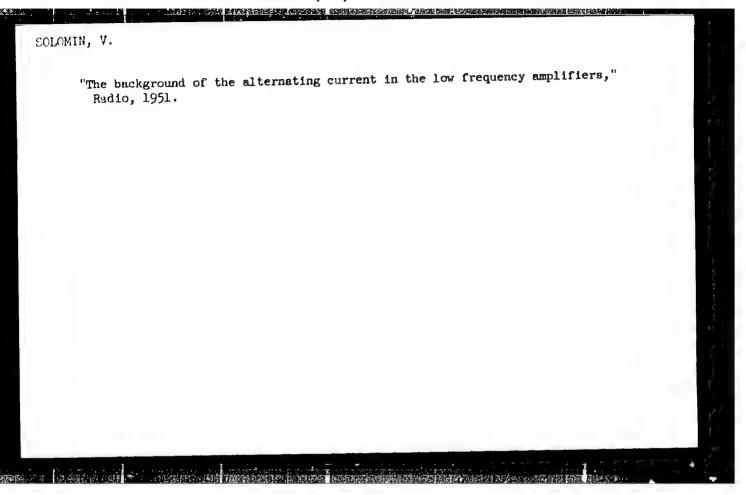


SOLOMIN, P.S.

Determination of the friction coefficient between copper and steel at high rates of deformation. Izv. vys. ucheb. zav.; Fiz. no.1:29-34 (58. (MIRA 11:6))

1.Tomskiy gosuniversitet imeni V.V. Kuybysheva. (Copper--Testing) (Steel--Testing) (Friction)





Sezemin, V. I

124-1957-10-12201

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 10, p 137 (USSR)

AUTHORS: Bakshi, O. A., Solomin, V. I.

TITLE: Study of Residual Stresses After Automatic "Electronic-Tornado"

Welding (Issledovaniye ostatochnykh napryazheniy posle

avtomaticheskoy vibrodugovoy naplavki)

PERIODICAL: V sb.: Yosstanovleniye iznoshennykh detaley avtomat.

vibrodugovoy naplavkoy. Chelyabinsk, 1956, pp 126-132

ABSTRACT: The article presents results of measurements of the residual

stress after automatic "electronic-tornado" welding of cylindrically shaped machine parts 50 mm in diameter, made of steel "20" where the experiments were conducted by means of the incision method. Along the surface of the specimen the existence

of tangential tensile stresses reaching 27-30 kg/mm<sup>2</sup> was revealed, and in the central zone tangential & radial compressive stresses of

8-12 kg/mm<sup>2</sup> were found.

G. A. Nikolayev

Card 1/1

PLATES ON ELASTIC HALF-SPACE BY THE GRID METHOD." SVERDLOVSK, 1961. (MIN OF HIGHER AND SEC SPEC ED RSFSR. URALS POLYTECH INST IMENI S. M. KIROV). (KL-DV, 11-61, 222).

-183-

SOLOMIN, V.I.

Calculation of beams on an elastic foundation by the method of finite differences. Trudy Ural. politekh. inst., no.102: 157-169 161.

Calculation of compressed and bent rods by the method of finite differences. 170-175 (MIRA 16:11)

# SOLOMIN, V.I. (Chelyabinsk) Design of foundation slabs for a load applied near a corner. Stroi.mekh.i rasch.soor. 5 no.216-11 '63. (MIRA 16:6) (Foundations) (Elastic plates and shells)

ACC NR: AT6035485 SOURCE CODE: UR/2572/66/000/012/0072/0094

AUTHOR: Solomin, V. I. (Candidate of technical sciences); Chernyavskiy, O. F. (Engineer); Komov, V. S. (Engineer); Shirokov, V. N. (Engineer)

ORG: None

TITLE: Calculation of a conical shell on a digital computer

SOURCE: Raschety na prochnost'; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey, no. 12, 1966, 72-84

TOPIC TAGS: conic shell structure, computer application, thin shell structure, shell theory

ABSTRACT: The authors consider a thin elastic conical shell with a load and thickness which vary arbitrarily along the meridian. It is assumed that temperature varies along the generatrix as well as with respect to thickness. The elastic constants are taken as independent of temperature. The computer program used for solving the problem is based on the method of finite differences combined with the method of initial parameters. The program is compact, taking up only 30% of the operative memory of the "Minsk-14" digital computer. The small size of this program gives potential applicability as a component part of a more general program for calculating structures where one of the elements is a conical shell. Machine time is only about ten minutes for computation of all nodal stresses and displacements for the case of

**Card** 1/2

SOLOMIN, Viktor Kirillovich; KHAKHALIN, V.S., red.; VORONIN, K.P., tekhn.red.

[Construction of electric musical instruments] Konstruirovanie elektromuzykal'nykh instrumentov. Moskva, Gos. energ. izd-vo, 1958. 63 p. (Massovata radiobiblioteka, no.310) (MIRA 12:2) (Musical instruments, Electronic)

SOLOMIN, Vladimir Vasil'yevich; LISOV, V.Ye., red.; PONOMAREVA, A.A., tekhn. red.

[Transportation planning in the U.S.S.R.] Planirovanie transporta v SSSR. Moskva, Izd-vo ekon. lit-ry, 1961. 126 p. (MIRA 14:11)

1. Glavnyy spetsialist po voprosam transporta i svyazi Gosudarstvennogo planovogo komiteta Soveta Ministrov SSSR (for Solomin).

(Transportation)

PAYNBERG, A.I.; REZNIK, A.I.; SOLOHIM, V.V.; LIBERMAN, Ya.A.; ALEKSEYEV, S.A.;
VASSERMAN, S.Z.; BORISOVSKIY, S.P., red.; ALTUP'YEVA. A.M., red.

izd-va; KONYASHINA, A.D., tekhn.red.

[Drawing up plans for housing and municipal services] Metodika
sostavleniis plans zhilishchno-kommunal'nogo khozleistva. Pod
red. S.P.Borisovskogo. Moskva, Izd-vo M-va kommun. khoz. RSFSR,
1957. 408 p.

(Housing) (Municipal services)

TARASENKO, Mikhail Yakovlevich; SOLOMIN, V V., nauchay red.; GERASIMOVA, G.S., red. izd-va; GOL'BERG, T.M., tekhn. red.

[Reorganization of the management of industry and construction and lowering the cost of building and assembling operations; from the experience of the Chelyabinsk Economic Administration Region] Perestroika upravlenia promyshlennost8iu i stroitel'stvom i snizhenie sebestoimosti stroitel'no-montazhnykh rabot; iz opyta stroitel'nykh organizatsii Cheliabinskogo ekonomicheskogo administrativnogo raiona.

Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 74 p.

(Chelyabinsk Province—Construction industry)

BUDCVOY, G.T.; MARTINKOV, I.P.; SHKOL'HIKOV, B.Ya.; GRIGOR'YEV, Ye.A.;

SOLOMIN, V.V.; REZNIK, A.I.; IGNATOVICH, A.A.; OZORHOV, A.K.;

GILINSKOY, E.B.; ZHIRNOV, V.Ye.; NEMENSKIY, M.I.; VOLKOV, H.I.,

red.; VOSKANYAN, G.G., red.; KASIMOVSKIY, Ye.V., red.; FOMIN,
A.Ya., red.; LISOV, V.Ye., red.; POHOMAREVA, A.A., tekhn. red.

[The district worker's manual; reference and methodological aid for economic and cultural planning in an administrative district] Spravochnik raionnogo rabotnika; spravochno-metodiche-skoe posobie po planirovaniiu khoziaistvennogo i kul'turnogo stroitel'stva v administrativnom raione. Moskva, Ekonomizdat, 1962. 439 p.

(MIRA 15:7)

(Russia--Economic policy--Handbooks, manuals, etc.)

ANDREYEV, V.P.; BUTKOVSKIY, N.I.; KOMAROV, L.A.; KUDINOV, V.S.;

MASHANSKIY, G.S.; MERKIN, R.M.; MERKULOV, V.A.;

ZEMLYANIKIN, S.A.; SOLOMIN, V.V.; SHOLOKHOV, Ye.I.;

PEREPELITSKAYA, A.G., Fed.; AVDETEVA, V.A., tekhn. red.

[Toward the new achievements; the Russian Federation in 1963, concise handbook] K novym rubezham; Rossiiskala Federatsiia v 1963. godu. Kratkii spravochnik. Moskva, Sovetskaia Rossiia, 1963. 284 p. (MIRA 16:10)

(Russia--Economic policy--Handbooks, manuals, etc.)

SOLOMIN, Vladimir Vasil'yevich; PROFERANSOV, D.P., nauchmyy red.;

GYUNTER, A.R., red.izd-va; RUDAKOVA, N.I., tekhn. red.

[Plan is construction's law]Plan - zakon stroitel'stwa. Moskva, Gosstroiizdat, 1961. 60 p. (MIRA 16:4)

(Construction industry—Management)

LIVTINOV, V.L.; SOLOMIN, Yu.S.

Possibilities of dividing and correlating granitoids by rare and dispersed elements in the rock-forming minerals. Geol. i geofiz. no.6:60-74 '62. (MIRA 15:7)

1. L'vovskiy gosudarstvennyy universitet imeni Franko.
(Amazar Valley—Granite)

LITVINOV, V.L.; SOLOMIN, Yu.S.

Increased jointing zones in the eastern part of eastern Transbaikalia and their role in the distribution of postmagmatic mineralization. Izv. vys. ucheb. zav.; geol. i razv. 7 no.2:83-92 F\*64. (MIRA 17:2)

1. Livovskiy gosudarstvennyy universitet im. Iv. Franko.

### SOLOMINA, A.

Public commission of the province committee. Okhr. truda i sots. strakh. 5 no.7:14 J1 '62. (MIRA 15:7)

1. Predsedatel' obshchestvennoy komissii sotsial'nogo strakhovaniya pri Permskom oblastnom komitete professional'nykh soyuzov rabotnikov prosveshcheniya, vysshey shkoly i nauchnykh uchrezhdeniy.

(PERM PROVINCE—SCHOOL HYGIENE)

POZDNIKOV, V.N.; YANUSHKOVSKIY, V.A.; SOLOMINA, L.N., otv. red.;

MANVELOVA, Ye.S., tekhn. red.

[Use of radioisotope methods for centrol in the food industry]
Radioizotopnye metody kontrolia v pishchevol promyshlennosti.

Moskva, 1962. 48 p.

(MIRA 16:4)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii pishchevoy promyshlennosti.

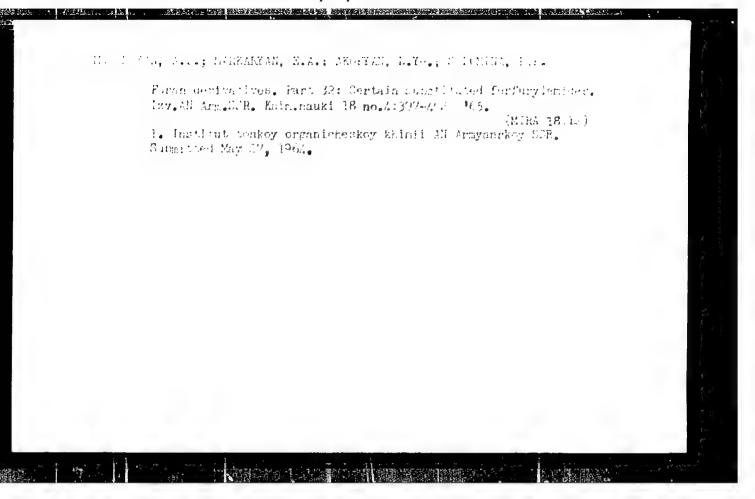
(Radioisotopes--Industrial applications)

(Automatic control) (Food industry)

MDZHOYAN, A.L.; MARKARYAN, E.A.; SOLOMINA, L.F.; KALAYDZHYAN, A.Ye.

Derivatives of furan. Part 30: Synthesis and some transformations of substituted &-cyanofurans. Izv.AN Arm.SSR.Khim.nauki 17 no.1:89-94 '64. (MIRA 17:4)

1. Institut tonkoy organicheskoy khimii AN Armyanskoy SSR.



STEPANOW, N.D.; SOLOMINA, M.Ya.

Organization of agricultural meteorological observations of winter crops. Neteor.1 gidrol. no.2:33-34 y '52.

(NLPA 8:9)

1. Sverdlovskoye UGMS, Sverdlovsk.

(Meteorology, Agricultural--Observations)

S/137/60/000/011/023/043 A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No.11, p.120, # 26178

AUTHOR:

Solomina, P.S.

TITLE:

Experiences of Measuring the Metal Pressure on Rolls

PERIODICAL:

Tr, Mezhvuz, nauchno-tekhn, konferentsii na temu: "Sovrem.dostizh,

prokatn. proiz-va", Vol. 2, Leningrad, 1959, pp. 341 - 347

TEXT: At the "Krasnyy vyborzhets" Plant stationary indicators of metal pressure on rolls, designed by TsNIITMASh, are used on 2 two-and four-high billet mills. The indicators represent universal dynamometers with foil pickups glued into the plunger recess of the liquid dynamometer. The use of the pick-ups made it possible to develop more practicable reduction systems, which were also used to determine the effect of different greases on the magnitude of metal pressure on the rolls when rolling a brass strip billet of 4.5 x 650 mm on the 500-two-high mill.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

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USER/Geology

Card 1/1

Pub. 22 - 35/47

Authors

\* Miklukho-Maklay, A. D., and Solomina, R. V.

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Title

New data on the stratigraphy of the carboniferous deposits in the Shartymka River basin (southern Ural).

Periodical

# Dok. AN SSSR 101/6, 1105 - 1107, Apr. 21, 1955

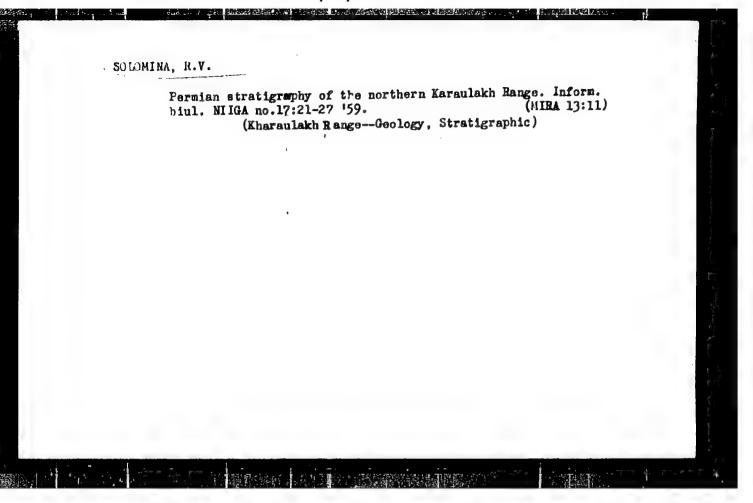
Abstract

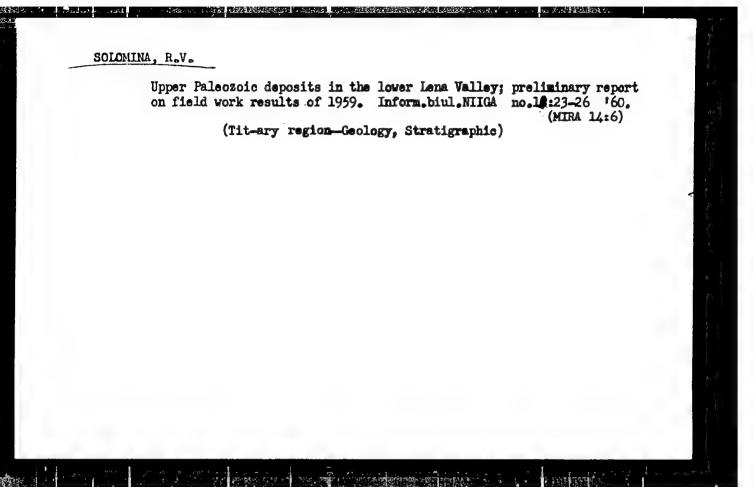
New geological data are presented on the stratigraphy and fauna of the carboniferous deposits discovered in the Shartymka River basin in southern Ural. Five Russian and USSR references (1900-1950).

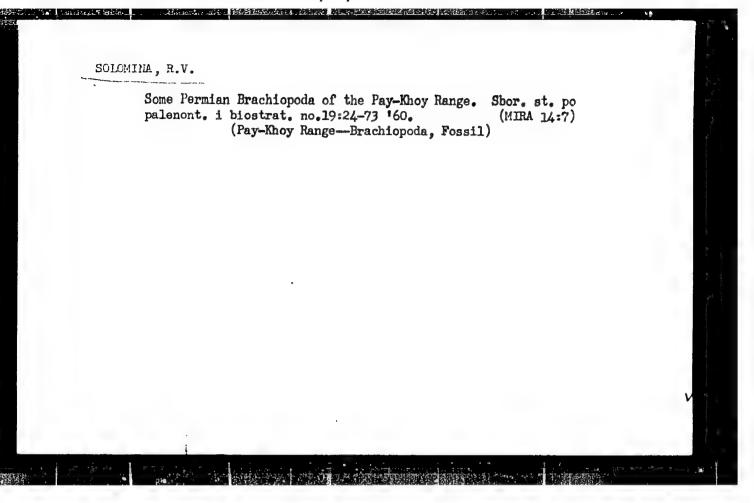
Institution:

The A. A. Zhdanov State University, Leningrad

Presented by: Academician D. V. Nalivkin, December 27, 1954







SOLOMINA, R.V.; CHERNYAK, G. Ye.

Orulgania, a new genus of speriferids from the Upper Paleozoic in the Arctic. Paleont. Ehur. no.3:61-66 161. (MIRA 15:2)

1. Nauchno-issledovatel\*skiy institut geologii Arktiki. (Arctic regions—Brachiopoda, Fossil)

SOLOMINA, R.V.; CHERNYAK, G.Ye.

Carboniferous sediments in the region of the Lena estuary. Sbor.st. po paleont. i biostrat. no.26:5-9 '61. (MIRA 15:8) (Lena Valley—Paleontology, Stratigraphic)

